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Observations of Occultations of Stars by the Moon, and of Phenomena of Jupiter's Satellites, made at the Royal Observatory, Greenwich, in the year 1883.

(*Communicated by the Astronomer Royal.*)

Occultations of Stars by the Moon.

Day of Obs.	Phenomenon.	Telesc.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Obs.
1883. Jan. 20	(*a*) Disapp. 71 Orionis	Altaz.	100	Dark	9 21 55·75	H.
Feb. 16	(*b*) Disapp. χ^2 Orionis	,,	100	,,	5 59 4·82	L.
16	(*c*) Disapp. χ^2 Orionis	E. Eq.	140	,,	5 59 7·15	H.
Mar. 12	(*d*) Disapp. *o* Arietis	,,	60	,,	6 51 3·74	L.
12	Disapp. *o* Arietis	Altaz.	100	,,	6 51 3·51	H.
July 17	Disapp. Piazzi xvii. 304	,,	100	,,	11 30 31·99	H.
Aug. 21	(*e*) Reapp. ϵ Piscium	E. Eq.	—	,,	12 43 2·27	T.
24	Reapp. Piazzi iii. 87	Altaz.	100	,,	11 21 29·40	A.P.
Sept. 14	(*f*) Disapp. c^1 Capricorni	,,	100	,,	8 43 42·82	J.P.
14	Disapp. c^2 Capricorni	,,	100	,,	8 47 38·48	J.P.
14	(*g*) Reapp. c^1 Capricorni	,,	100	Bright	9 7 0·90	J.P.

Notes.

(*a*) Observation difficult; star disappeared very near the bright limb.
(*b*) ,, cloudy, star very faint.
(*c*) Misty; star very faint. (*d*) Observation considered very good.
(*e*) Cloudy. (*f*) Star followed to bright edge; observation difficult.
(*g*) Moon's limb very tremulous.

Phenomena of Jupiter's Satellites.

Day of Observ.	Sat.	Phenomenon.	Telesc.	Power.	Mean Solar Time of Observ. h m s	Mean Solar Time of N.A. h m s	Obs.
1883. Jan. 4	I.	Ecl. R. First seen	E. Eq.	140	10 24 50	10 24 47	H.
		Full brightness	,,	,,	10 26 51		
	III.	First seen	,,	,,	11 42 51	11 45 8	,,
		Full brightness	,,	,,	11 45 58		
10 (*a*)	II.	Tr. Egr. Bisection	,,	,,	7 58 9	7 56 0	,,
18	I.	Occ. D. First contact	,,	,,	11 10 35	11 16 0	,,
		Bisection	,,	,,	11 13 24		
		Last contact	,,	,,	11 16 30		
(*b*)	III.	Occ. D. First contact	,,	,,	13 55 43	14 3 0	,,
		Last contact	,,	,,	14 0 15		

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Day of Observ.	Sat.	Phenomenon.		Telesc.	Power.	Mean Solar Time of Observ.	Mean Solar Time of N.A.	Obs.
1883.						h m s	h m s	
Jan. 18	I.	Ecl. R.	First seen	E. Eq.	140	14 15 24	14 15 18	H.
			Full brightness	,,	,,	14 17 4		
27	I.	Ecl. R.	First seen	Altaz.	100	10 40 28	10 39 33	B.
Feb. 5	III.	Tr. Ing.	First contact	E. Eq.	310	10 51 31	10 58 0	A.D.
			Bisection	,,	,,	10 57 0		
			Last contact	,,	,,	11 4 59		
9	III.	Ecl. R.	First seen	Altaz.	100	7 50 22	7 52 23	B.
10	I.	Occ. D.	First contact	E. Eq.	140	11 3 20	11 9 0	H.
			Last contact	,,	,,	11 7 53		
16	III.	Occ. R.	Bisection	,,	,,	7 0 0	7 3 0	,,
			Last contact	,,	,,	7 3 12		
		Ecl. D.	Last contact	,,	100	9 15 30	9 13 20	,,
	(*c*)	Ecl. R.	First seen	Altaz.	100	11 52 15	11 54 13	L.
			First seen	E. Eq.	140	11 52 18		H.
	II.	Occ. D.	First contact	Altaz.	100	11 53 20	11 58 0	L.
			Last contact	,,	,,	11 57 35		,,
			First contact	E. Eq.	140	11 53 31		H.
			Bisection	,,	,,	11 55 58		,,
			Last contact	,,	,,	11 59 53		,,
23	III.	Occ. D.	First contact	,,	310	7 58 0	8 8 0	A.D.
			Bisection	,,	,,	8 3 19		
			Last contact	,,	,,	8 8 40		
	III.	Occ. R.	First seen	,,	,,	10 45 8	10 52 0	,,
			Last contact	,,	,,	10 50 52		
	III.	Ecl. D.	Last seen	,,	,,	13 16 13	13 14 14	T.
26	I.	Occ. D.	First contact	,,	,,	9 19 40	9 21 0	L.
			Last contact	,,	,,	9 21 57		
28	I.	Ecl. R.	First seen	,,	60	7 20 48	7 20 9	A.P.
Mar. 6	I.	Tr. Ing.	Last contact	E. Eq.	140	8 31 58	8 30 0	H.
(*d*)		Tr. Egr.	First contact	,,	,,	10 44 49	10 46 0	,,
			Bisection	,,	,,	10 46 25		
(*e*)	II.	Ecl. R.	First seen	,,	100	11 32 24	11 31 24	,,
30	I.	Ecl. R.	First seen	,,	310	9 32 17	9 32 20	L.
			Full brightness	,,	,,	9 33 20		
31	III.	Ecl. D.	Last seen	,,	,,	9 15 49	9 16 41	A.P.
Apr. 6 (*f*)	I.	Occ. D.	First contact	Altaz.	100	7 56 56	8 0 0	A.D.
			Last contact	,,	,,	8 0 10		

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Day of Observ.	Sat.	Phenomenon.		Telesc.	Power.	Mean Solar Time of Observ.	Mean Solar Time of N.A.	Obs.
1883.						h m s	h m s	
Apr. 25	III.	Tr. Egr.	First contact	E. Eq.	140	9 49 29	9 56 0	H.
			Last contact	,,	,,	10 0 27		
May 13 (*g*)	III.	Occ. R.	First contact	Altaz.	100	8 47 22	8 52 0	L.
			Last contact	,,	,,	8 54 41		,,
			First seen	E. Eq.	140	8 48 12		H.
(*h*)			Bisection	,,	,,	8 50 51		,,
			Last contact	,,	,,	8 54 17		,,
16 (*i*)	II.	Occ. D.	First contact	,,	,,	8 56 33	9 7 0	A.D.
			Last contact	,,	,,	9 2 32		
Oct. 16 (*k*)	II.	Occ. R.	First seen	,,	310	12 12 41	12 4 0	L.
			Bisection	,,	,,	12 15 46		
			Last contact	,,	,,	12 19 15		
Nov. 6	I.	Ecl. D.	Last seen	,,	60	12 49 8	12 49 7	J.P.
	II.	Ecl. D.	Last seen	,,	,,	14 25 26	14 26 6	,,
13	I.	Ecl. D.	First contact	,,	140	14 41 51	14 42 12	H.
			Last seen	,,	,,	14 42 58		
17 (*l*)	II.	Occ. R.	Bisection	,,	,,	11 42 43	11 39 0	,,
			Last contact	,,	,,	11 46 10		
19	III.	Tr. Ing.	First contact	Simms Eq.	—	11 16 54	11 24 0	,,
			Bisection	,,	—	11 19 57		
			Last contact	,,	—	11 24 22		
23	I.	Tr. Egr.	Clear of Planet	E. Eq.	—	11 46 37	11 47 0	T.
Dec. 1 (*m*)	I.	Occ. R.	First seen	,,	60	10 45 15	10 45 0	L.
			Full brightness	,,	,,	10 47 30		
14	III.	Ecl. D.	First contact	,,	70	8 33 2	8 36 24	H.
			Last seen	,,	,,	8 37 57		

Notes.

(*a*) Cloudy at first and last contact. (*b*) *Jupiter's* limb ill-defined, boiling. (*c*) Observation doubtful: perhaps a few seconds late. (*d*), (*e*) Clouds passing. (*f*) *Jupiter* very tremulous. *g*) First contact doubtful; last considered very good. (*h*) Observation doubtful. (*i*) Observation uncertain; planet low down; *Jupiter's* limb boiling. (*k*) *Jupiter's* limb very badly defined. (*l*) Observation uncertain; *Jupiter's* limb boiling; clouds passing. (*m*) *Jupiter* very faint; sky hazy.

The clear aperture of the object-glass of the E. Equatorial is $6\frac{3}{4}$ inches, of the Altazimuth 4 inches, and of the Simms Equatorial 6 inches.

The initials A. D., T., L., H., J. P., A. P., and B., are those of Mr. Downing, Mr. Thackeray, Mr. Lewis, Mr. Hollis, Mr. Power, Mr. Pead, and Mr. Bennett.

Royal Observatory, Greenwich:
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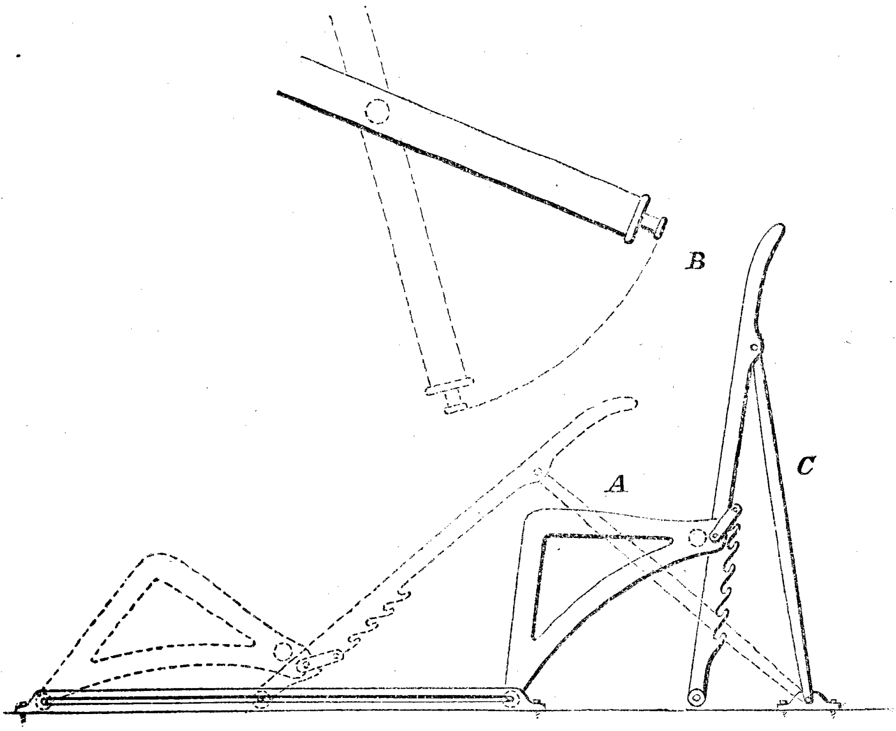
Suggestion for an Observing Seat for Transit Instruments.

By Richard Inwards.

The accompanying drawing shows the proposed form of seat. It consists mainly of three moveable parts—the seat A, the back B, and the strut C, the latter being attached to a hinge-piece screwed into the floor.



The seat is raised or depressed by altering the position of the supporting link upon the rack of B. This at the same time alters the height of the seat and the slope of the back, as well as thrusts the whole chair forward by the action of the hinged strut C, as shown by the dotted lines in the diagram. This enables the observer to follow with comfort all the usual movements of the telescope. The addition of a small moveable pad or cushion behind the head may be necessary to complete the adjustment in some positions. A roller keeps the seat and back always in contact.

A seat on a similar principle can be made in which the observer can by means of a tangent screw and rack alter his position without leaving the seat. A model illustrating this was exhibited to the meeting.

1884, *Jan.* 11.